



## The Mali MaaCiwara\* Project Newsletter

\*(pronounced Maa-Chiwara)

Dec 2022 Issue 2

### In this 2nd Newsletter

- **Study Process:** Trial registration updated and protocol manuscript resubmitted to the journal after minor review comments
- **Evaluation:** 60 field data collectors were recruited and trained. Baseline data collected in 120 clusters from January to May 2022 (see details below).
- **Intervention Adaptation:** Using the findings of the formative research, the intervention was adapted and the final key messages of this intervention developed. Afterwards, the creative team used this report to create songs and drama for intervention delivery. Intervention teams, 2 each for rural and Urban were recruited and trained (see details below).
- **Advisory groups:** Trial Steering Committee/Data Management Committee (TSC/DMC), International Expert Advisory Group (IEAG), and Mali National Expert advisory Group (NEAG). The local Community Committees are being established.
- **Study sites Randomised:** 120 communities (clusters) for the study have been randomised per the protocol to receive the intervention or not after the baseline data collection.
- **Intervention implementation:** Started in October 2022.

### Project Outline

**The main overall aim** - To investigate the impact of a community-based intervention to improve food-safety and hygiene, child feeding, and hygienic child play, as well as women's empowerment and community action. **Project Setting:** Urban communities (Bamako) and rural communities (Bamako, Ségou & Sikasso). **Intervention:** Based upon smaller successful studies in Nepal and the Gambia. The intervention is a 4-day community campaign about food safety/hygiene, nutrition and hygienic play dispersed across 35 days plus volunteer home visits followed by a 9-12 months reminder campaign day. **Evaluation:** 27 Mothers and children in each community (6-36 months old) will be assessed at baseline, 4- and 15-months post intervention. **Planned project period:** February 2021-December 2024. **Outcomes Measured:** Diarrhoea; growth; child development; We are also interested in exploring the role of women's empowerment and the contribution of better health through community action and cohesion resulting from our intervention.

### Training and collection of Baseline Data



- Recruitment and training of field workers (FW) for baseline data collection were done in November and December 2021.
- Two data collection teams, one for urban and another for rural communities carried out data collection in 120 study clusters.

- In each cluster, 27 households meeting the eligibility criteria were randomly sampled.
- FWs visited each house for 7-8hrs from very early morning to late afternoon, collecting data through structured questionnaires and observations of cooking, feeding and child play.
- The baseline data collection was paused due to Ramadan when cooking could not be easily observed.
- There were a number of issues with our database management. As these issues required time to resolve during Ramadan break in data collection. Therefore, we resorted to paper-based data collection for the remaining few clusters. A refresher training and detailed management protocol was implemented to enhance the quality of the paper-based data collection. These will be entered into the RedCap database.
- An enhanced and tested REDCAP database is being developed for midline (4 months) and endline (15 months) evaluation.
- Recruitment and training of the set of field data collectors for midline (4months) evaluation is scheduled for December/January 2023.
- Four months post intervention evaluation will be carried out in February 2023.



### Capacity building & PhD students

1. In August 2022, during a visit to Mali, the UK Co-PI, Prof Richard Lilford delivered a Bayesian statistics research seminar at USTTB
2. During the unfolding of different stages of the project CI Semira Manaseki-Holland has visited Mali for several weeks or months at a time to assist and supervise the training of staff for formative research (Nov-Dec 2020), baseline data collection (Nov-Dec 2021), intervention development (Feb-Mar 2022) and intervention team training (Jul-Sep 2022).
3. The UK project manager, Dr. Evans Asamane travelled to Mali during training for baseline data collection to provide support to the local
4. Mr Modibo Telly, a Mali laboratory researcher is trained and conducting microplastics analysis on children's stools for a new sub-study in the Geography laboratories of the University of Birmingham (UoB) for 6 months.
5. Two PhD students in anthropology and health economics have registered at USTTB and UoB respectively and are being jointly supervised by both universities. They are contributing to and will be using data from the study.
6. Mali project staff, with associate membership of UoB, continue to have access to a wide range of training, scientific meetings, library facilities and other resources. In 2021-22, online masters courses in qualitative research, RCT and systematic reviews.
7. The team also supported Mr Youssouf Diarra and Dr Cheick Sidibe to prepare and submit abstracts for a poster presentation at the Forum for Global Challenges, 2022 in Birmingham, UK
8. The team also supported Dr. Asamane to prepare and present at the Water and Health 2022 conference in the US



## Intervention Adaptation & implementation

- Intervention development and implementation had several stages: all but the first stage took place during 2022.
- Intervention development began with the formative research in early 2021 to identify the critical control points for handling child's complementary food and feeding, and behaviours needing to be targeted, as well as the motivators for maternal behaviour change.
- In early 2022 the expert intervention adaptation group (including Mali project members) using the formative research findings and the Gambia and Nepal intervention principles and theoretical concepts, defined the critical control points corrective behaviours and motivators for behaviour change for MaaCiwara project. Campaign Design Principles and a creative brief were defined.
- These were used by the Mali intervention adaptation/creative team to develop the details of the intervention plan and tools. This group had a majority of non-public health and non-researcher composition from communities, including women's group leader, male and female performing artists.
- The resulting designed campaign was piloted in a peri-urban area.
- In summer of 2022, 4 Intervention delivery teams were recruited and trained. Each team was made up of a public health/health promotion staff, performing artists, and a driver.
- The intervention was further field-tested during the training and details improved iteratively.
- The intervention is composed of four campaign visits to communities on days 1, 2, 17-22, 27-30, and a reminder visit at 9-12 months.
- The intervention revolved around a MaaCiwara mother figure, which all mothers are encouraged to model. All family members and community are involved, encouraged to help the mothers achieve this, and the role of fathers is emphasised by community leaders.
- The mothers move through stages of achievement and will become MaaCiwara when they enact 5 of 7 recommended behaviours and recruit 2 other mothers to pledge to do the same. Additional mother volunteers who encourage and visit pledged or MaaCiwara mothers between campaign days, and community leaders are rewarded at the end of the 4 weeks if enough MaaCiwaras are active.
- Components revolve around social norm change and mother's motivation to change behaviour. Performing arts that led to the success of the Gambia project, are heavily emphasised in our Mali intervention.
- Communities have been randomised and intervention implemented from Oct 2022 to Jan 2023.

## Funding news

- Global Challenge Research Fund (GCRF) under UK Research and Innovation (UKRI) announced substantial budget cuts in 2021-22 due to COVID-19 that significantly affected MaaCiwara. The project subsequently reprofiled and continued, but lost key staff positions mainly in the UK. Further high inflation has added financial stress to the project. We are very grateful to the University of Birmingham in 2021-22, and MRC in 2022 who have helped us to bridge some budget gaps.
- Additional small funds for new sub-studies have enriched and added some shared funding to MaaCiwara. These include Dr Sidibe and Mr Y Diarra's Donald Krogstad Mali Early Researcher grant for microplastics analysis (\$25k), and Dr Evans Asamane's Wellcome Trust ISSF grant for Communal Handwashing before meals (£22k).

## TSC/DMC, International and Mali Expert Advisory Groups



We are grateful to various members of our advisory committees that monitor, advise and guide our work. See Website and next newsletter for details.

**Trial Steering and Data Monitoring Committee (TSC/DMC)** is composed of 5 independent members and chaired by Prof Umberto Dalessandro. TSC/DMC met in Oct 2021 and Oct 2022, providing advice on the protocol, statistical and qualitative assessments and intervention design.

**International Expert Advisory Group (IEAG)** is composed of 15 members globally from WHO, UNICEF headquarter or regional offices, INGOs, and leading universities. IEAG is chaired by Prof R Lilford, met in Jan 2022 and will meet again in Jan 2023, advising on intervention adaptation, measures of study outcomes especially laboratory measures.

**Mali Expert Advisory Group (MEAG)** has 20 members across different expertise, national/international agencies in Mali concerned with WASH, nutrition, maternal-child health and gender-equity. MEAG met in Sept 2022 and will meet again 4-6 monthly. MEAG advise on all aspects of methodology, application of findings and dissemination in Mali.



Intervention delivery in a community. Afternoon community drama portraying the key behaviours of the intervention

## Sub-studies

We have a number of sub-studies which have developed through small funding related to our MaaCiwara study data/findings. Broadly these are as follows:

1. Understanding and exploring intervention options of Communal-handwashing in households without soap before meals led by Dr Asamane and Dr Manaseki-Holland.
2. Exploring the scale of microplastics in child's drinking water and stools led by Mr Y Diarra, Dr Sidibe, Prof Toure, Prof Koita, Dr Manaseki-Holland and Prof Krause

## Next steps



- Recruitment and training of field workers for midline data collection in January 2023
- Qualitative (realist process evaluation) data collection commencing

- Cleaning and descriptive analysis of baseline data.
- Recruiting UK and Mali Qualitative staffs
- Completing manuscripts development and publications.

Website: <https://www.birmingham.ac.uk/research/applied-health/research/maaciwara-study/our-research.aspx>

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